



Motion Studio
What's New
Version 2.12.04

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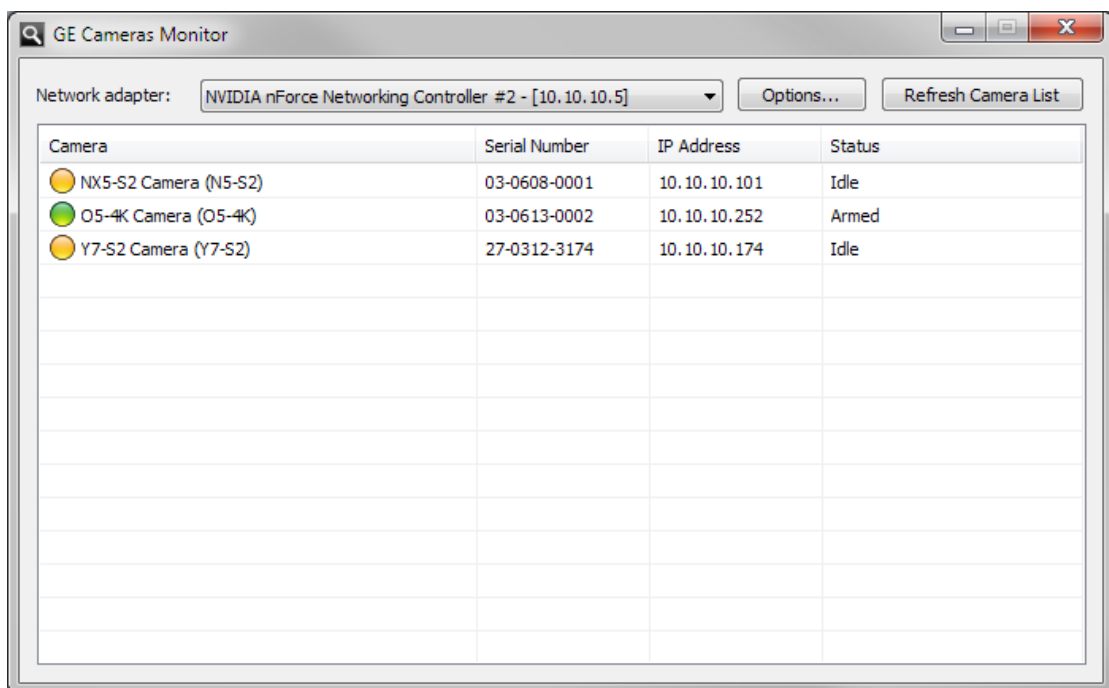
1. Overview

This document only lists a short summary of additions, improvements and changes in the GUI between Motion Studio versions.

2. What's new

2.1. Ethernet cameras monitor

A new tool has been added to the Motion Studio software package, the Ethernet cameras monitor.

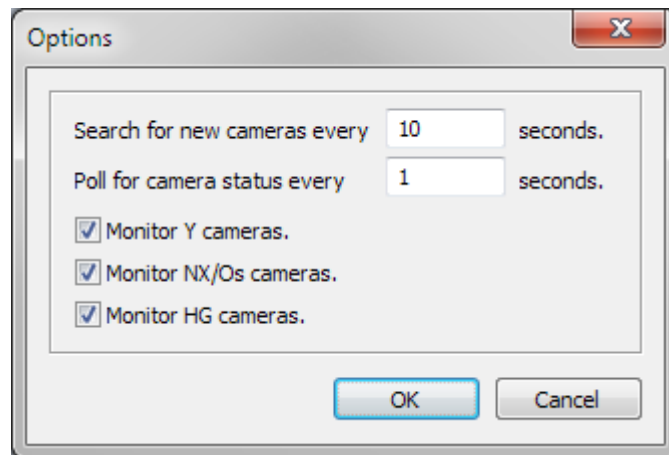


The tool detects the Ethernet cameras connected to the network and updates the status in real time. Some of the detection parameters may be changed.

Network adapter: select the computer network adapter that is connected to the camera network.

Refresh Camera list: click this button to reset the list and restart camera detection process.

The options that may be edited are shown below:

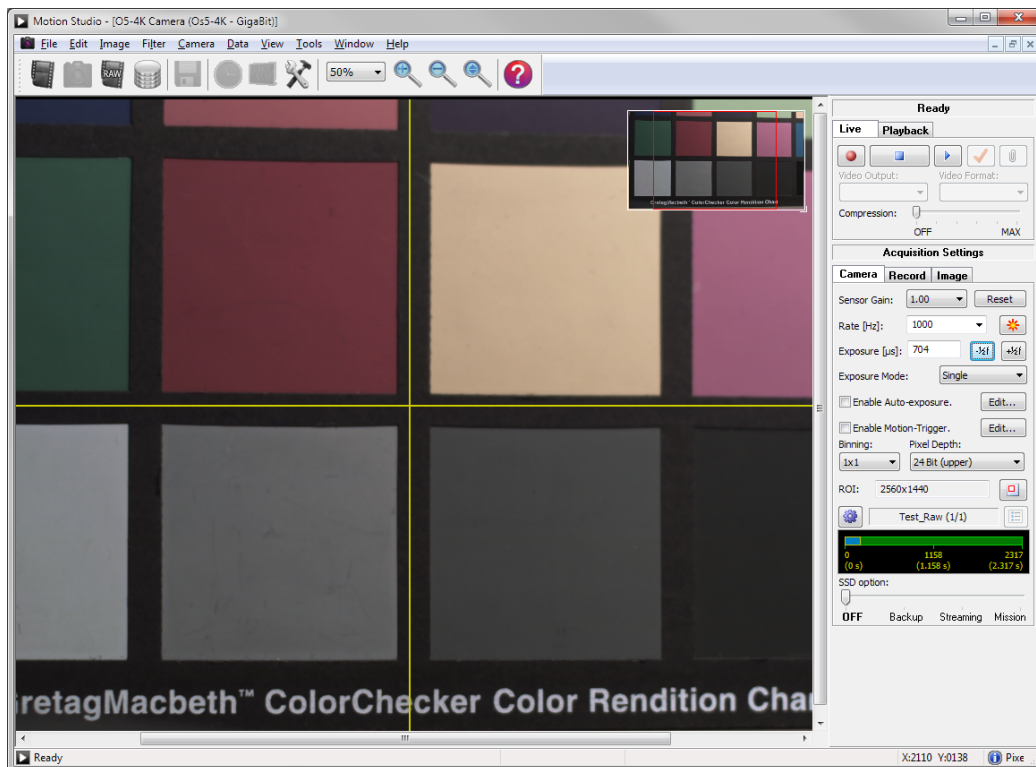


Search for new cameras: it configures the frequency of enumerating and detecting new cameras.

Poll for camera status: it configures the frequency of polling cameras for status.

Camera series: select which camera model should be detected and listed.

2.2. Reticule



If the reticule is shown in live and playback images and the images are saved, the reticule is burned into the image data, like the time stamp.

2.3. Vidi Motion

The interface of Vidi Motion has been changed and made more “user friendly”.

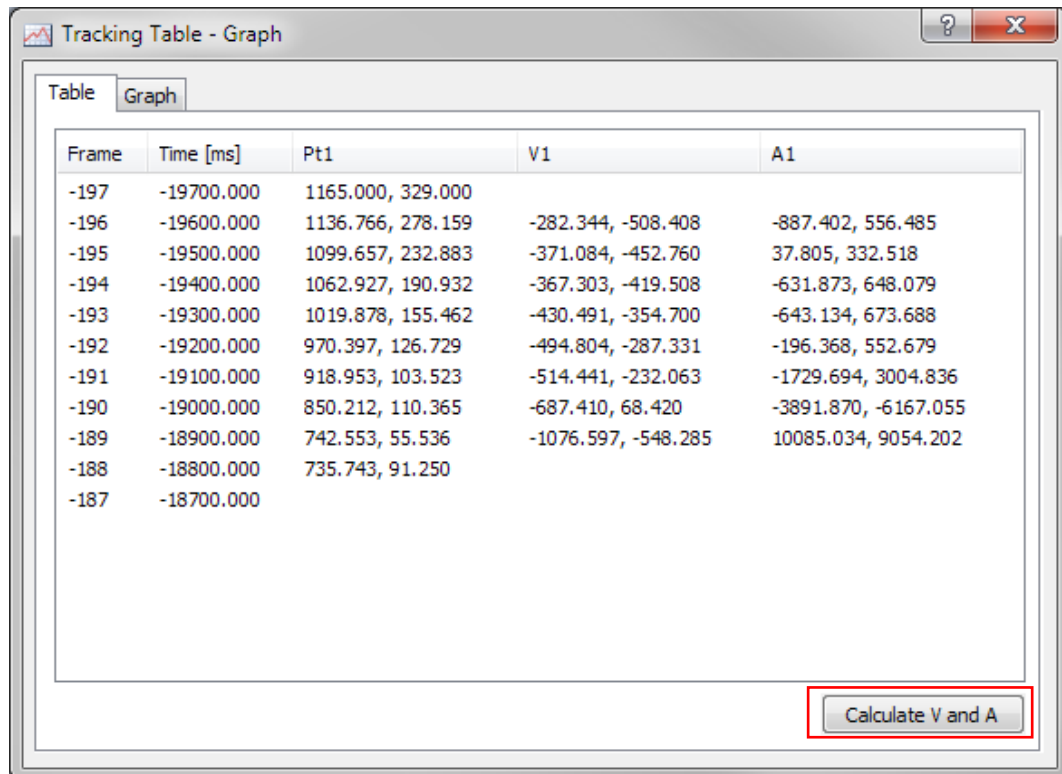
- The lens database and the lens details button have been removed.
- The Lens aperture control has been added to the main window and the lens calculations (Hyper focal distance, DOF, near limit, far limit and effective aperture) have been added to the calculations list.

The screenshot shows the Vidi Motion software interface. It is divided into several sections:

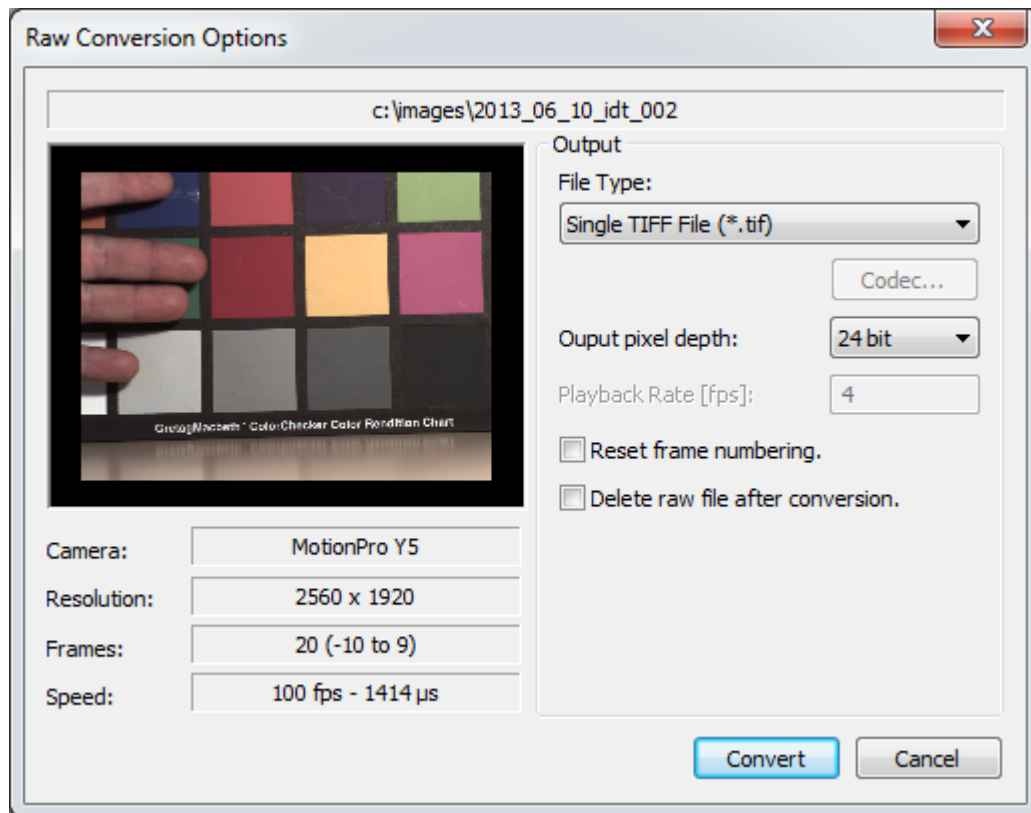
- Camera Section:** Contains dropdown menus for 'O/Os-series' (set to 'Os5-4K') and 'Resolution' (set to '3840' x '2160'). It also has input fields for 'Memory Size [GB]' (8), 'Disk Size [GB]' (256), 'Rec Speed [fps]' (520), and 'Exp [μs]' (100). There are buttons for 'Find resolution from max rate...' and 'Resolution vs rate table...'.
- Calculations Section:** Includes an 'Output' dropdown set to 'Object Distance'. Input fields for 'Field Width [mm]' (60), 'Focal Length [mm]' (90), and 'Object Speed [m/s]' (1) are present. A 'Lens aperture' dropdown is highlighted with a red box, showing 'F 1.2'. Below this are buttons for 'Speed calculations...' and 'Export data...'. At the bottom, there are unit selection dropdowns for 'Length units' (mm), 'Speed units' (m/s), and 'Resolution units' (mm).
- Item/Value Tables:**
 - Top Table:** Lists camera specifications such as Sensor (Orion II [16:9] - GRBG), Pixel Size (4.02 μm), Sensor Size (15.4 x 8.6 mm), Minimum Exposure (1 μs), Pixel Depth (10), Plus mode supported (Yes), SSD (Yes), Interface (GE), Max Frame Rate (1000 fps), Max Rec Length in DDR (2317 - 4 s 455 ms), Max Rec Length in SSD (2683 - 5 s 159 ms), Max frames storage in SSD (78557), and SSD Streaming fps (116).
 - Bottom Table:** Lists calculation results such as Field Width/Height (60.000000 mm / 33.750000 mm), Object Distance (349.813446 mm), Focal Length (90.000000 mm), Magnification (0.256667), Resolution (0.015625 mm/pel 64.000000 pel/mm), Diagonal field angle of view (11.239231 deg), Horizontal field angle of view (9.803385 deg), Image Diagonal (17.711374 mm), Compatible Lens Types (F-mount), Object Movement per frame (1.923077 mm), Object Motion blur (0.100000 mm), Object Pixel Blur (6.400), Hyperfocal distance (168750.000000 mm), Depth of Field (1.077173 mm), Near focus limit (349.275665 mm), Far focus limit (350.352844 mm), and Effective aperture (1.51). The last five rows of this table are highlighted with a red box.

2.4. Speed and acceleration in tracking

A new button has been added to the tracking graph dialog box. The button calculates the speed and acceleration values of the tracked points.

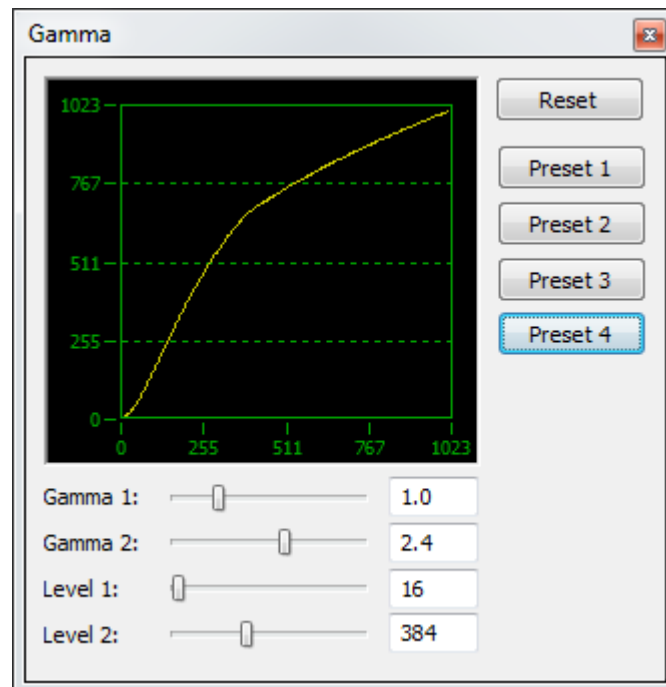


2.5. RAW Converter



When a raw file is open for conversion, the image is previewed and the acquisition parameters are displayed (camera model, resolution, number of frames, frame rate and exposure).

2.6. Gamma presets



Four preset buttons have been added to the gamma dialog box.

2.7. Miscellaneous changes

- Improved detection of trigger frame after each acquisition.
- Fixed software BROCC. The counter that is used to advance in BROCC sections was not increased.
- Improved management of SSD modes to avoid disconnection. Show percentage of transferred data during SSD read/write procedures. Synchronize SSD configuration with DDR configuration when images are loaded from disk. Fixed attach procedure and management of Os-series in camera list view. Removed messages when switch into modes. Fixed Os disconnection problem in SSD backup mode.
- Improved histograms draw precision (horizontal and vertical ticks).
- Improved display of pan tool. If the ROI is changed, the position of the pan tool is not reset.
- Fixed problem in time stamp (time from trigger) when images are converted from RAW. Fixed a problem in conversion that generates black images.
- Refresh items when ROI is changed.
- Improved display of file type in different conditions. If jpeg download is on, display only JPEG. If raw download and "convert later" are on, display "RAW - convert later", otherwise display a list of possible file types.
- Recovery files are stored in app folder, not in database.
- Added selection of decimated resolutions (1440p, 1080p, 720p, 480p).
- Added support to 12 bit Os cameras.
- Open images, raw files or DB explorer when the camera list is on: run a new instance of motion studio. It avoids problems in multi camera environment.
- If "jump to next segment" and "save and restart" options are on: camera records segments, jumps to next and, when segments are finished, saves them all and restarts from the first.
- If "Save JPEG" and "Save AVI" options are on, the camera downloads a jpeg frame, saves it, decompresses it and saves the AVI frames.
- If plus mode is activated on Y4 and N4 cameras, ROI Y and Height must be multiple of 8.
- If image parameters in RAW file are edited, the new values are stored in the file.
- "Recording pre-trigger" and "Armed" are the same status, fixed.